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Each fiscal year, NASA's budget request to Congress contains an annual performance plan that aligns with the funds requested. NASA typically needs to update some measures in the plan at the beginning of the year of execution.When the final appropriation differs from the amount requested, or if Congressional or Executive direction places a different emphasis on programs relative to what was initially requested, an update to the annual performance plan may be required. Additionally, the dynamic nature of research and development can lead to shifting priorities, and the activities that were originally identified in the annual performance plan may no longer be pursued by NASA.

NASA submitted the FY 2012 Performance Plan with its FY 2012 Congressional Justification in February 2011. Since then, several factors – in addition to typographical or other inaccuracies and changes to NASA's budget structure – have made it necessary to update the plan. First, NASA's execution of its FY 2011 performance plan was impacted by the year-long continuing resolution, and some activities were not initiated. As a result, one measure (APG 3.4.1.5: ST-11-7) was delayed from FY 2011 and carried over to FY 2012 (3.4.1.5: ST-12-17), which involves completion of the original activity and additional related activities. In other cases, work has already been completed, and the measures have been updated accordingly. In addition, NASA received Congressional or Executive direction through the FY 2012 Appropriation in November 2011, as well as other issued directives and guidance; as a result, NASA updated or combined measures.

This section provides a summary of NASA's performance commitments for FY 2012. Measures that have been revised are identified with an asterisk (*). Measures that have been deleted or re-written and combined with other measures are listed below:

APG 2.3.3.2: PS-12-10: Complete the Mars 16 Mission Confirmation Review. (Rationale for change: Budgetary Congressional/Executive direction.)

- Performance Goal 3.1.1.3: Establish and maintain a culture of innovation at each of the 10 NASA Centers through the development of new Center ideas and technologies. (Rationale for change: Budgetary Congressional/Executive direction.)
- APG 3.1.1.3: ST-12-3: Twenty innovative projects will be initiated across the NASA Centers. (Rationale for change: Goal reduced based on budgetary Congressional/Executive direction. Measure was combined with 3.1.1.1: ST-12-1)
- Performance Goal 3.1.1.6: Accelerate the development of push technologies to support the future space, science and exploration needs of NASA, other government agencies, and the commercial space sector. (Rationale for change: Budgetary Congressional/Executive direction. Measure was combined with 3.1.1.1: ST-12-1.)
- APG 3.1.1.6: ST-12-6: Complete 100 research plans. (Rationale for change: Goal reduced based on budgetary Congressional/ Executive direction.)
- Performance Goal 3.2.2.1: Mature technologies that enable small satellites to provide game changing capabilities for the government and commercial space sectors. (Rationale for change: Goal deleted based on budgetary Congressional/Executive direction.)
- APG 3.2.2.1: ST-12-8: Initiate development of at least two new technologies with game changing potential for small satellites. (Rationale for change: Goal deleted based on budgetary Congressional/ Executive direction.)

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- Performance Goal 3.4.1.3: Successful application of Small Business Innovation Research and Small Business Technology Transfer (SBIR/STTR) technologies into commercial products or services. (Rationale for change: Goal deleted based on budgetary Congressional/ Executive direction.)
- APG 3.4.1.3: ST-12-15: Greater than 35 percent of the Phase II Small Business Innovation Research and Small Business Technology Transfer (SBIR/STTR) technology projects awarded between 2007-2011 will be transferred into commercial products or services. (Rationale for change: Goal deleted based on budgetary Congressional/ Executive direction.)
- APG 5.1.1.1: AMO-12-1: Ninety percent of Shuttle workforce is assigned to follow-on work by FY 2012 year-end. (Rationale for change: APG complete. New APG covers activity area and consolidates measures.)
- APG 5.1.1.1: AMO-12-2: Twenty percent or more of annual recruitments will be through the early career hiring initiatives. (Rationale for change: New APG covers activity area and consolidates measures.)
- Performance Goal 5.1.1.2: Build skills across all levels of the workforce through Leadership Development Opportunities. (Rationale for change: Consolidated measure.)
- APG 5.1.1.2: AMO-12-3: Install an Agency-wide mentoring program that includes an automated system for matching mentors and mentees. (Rationale for change: New APG covers activity area and consolidates measures.)
- APG 5.1.1.2: AMO-12-4: Eighty percent of the Agency's leadership training and development programs include "leading through transformation" content. (Rationale for change: New APG covers activity area and consolidates measures.)
- Performance Goal 5.1.1.3: Achieve and sustain an effective labor-management dialogue. (Rationale for change: Consolidated measure.)
- APG 5.1.1.3: AMO-12-5: Identify and address at least three significant labor-management challenges identified during the year during periodic Agency-led Labor Management Forums. (Rationale for change: New APG covers activity area and consolidates measures.)
- Performance Goal 5.1.1.4: Adopt and respond to innovative employee feedback mechanisms. (Rationale for change: Consolidated measure.)
- APG 5.1.1.4: AMO-12-6: Seventy-five percent of NASA's primary installations implement improvement initiatives derived from the Federal Employee Viewpoint Survey. (Rationale for change: New APG covers activity area and consolidates measures.)
- Performance Goal 5.2.1.1: Through 2015, assure zero fatalities or permanent disabling injuries to the public. (Rationale for change: Consolidated three performance goals into one.)
- Performance Goal 5.2.1.2: By 2015, achieve a four percent reduction in the total case rate and lost time rate for the NASA civil service work force. (Rationale for change: Consolidated three performance goals into one.)
- Performance Goal 5.2.1.3: By 2015, reduce damage to NASA assets by eight percent from the 2010 baseline. (Rationale for change: Consolidated three performance goals into one.)
- Performance Goal 5.2.3.2: HPPG: Conserve valuable natural resources by reducing NASA's energy and water use.(Rationale for change: HPPG completed. Energy efficiency efforts continue to be tracked and reported elsewhere.)
- APG 5.2.3.2: ECR-12-1: Reduce energy intensity use annually by three percent from an FY 2003 baseline. (Rationale for change: HPPG completed. Energy efficiency efforts continue to be tracked and reported elsewhere.)

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- APG 5.2.3.2: ECR-12-2: Reduce potable water use annually by two percent from an FY 2007 baseline. (Rationale for change: HPPG completed. Energy efficiency efforts continue to be tracked and reported elsewhere.)
- APG 5.2.3.2: ECR-12-3: Reduce fleet vehicle energy use annually by two percent of petroleum products from an FY 2005 baseline. (Rationale for change: HPPG completed. Energy efficiency efforts continue to be tracked and reported elsewhere.)
- Performance Goal 5.5.1.1: HPPG: Establish an independent non-profit (NPO) organization to enhance the utilization of the ISS as a National Laboratory. (Rationale for change: HPPG completed.)
- APG 5.5.1.1: ISS-12-6: Facilitate non-profit organization (NPO) implementation of its initial grants solicitation process. (Rationale for change: HPPG completed.)
- Efficiency Measure APG AMO-12-20: Maintain system execution time during the year-end close process at FY 2010 baseline. (Rationale for change: Included in original submission erroneously.)

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**Measures that have been revised.*

*** The Performance Goals in support of Earth Science, Heliophysics, Planetary Science, and Astrophysics themes are distinct activities supporting the scientific objectives established in NASA's Strategic Plan*

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Measure #	**Description**	**Contributing Theme**	**Contributing Program**
Strategic Goal 1	**Extend and sustain human activities across the solar system.**		
Outcome 1.1	Sustain the operation and full use of the International Space Station (ISS) and expand efforts to utilize the ISS as a National Laboratory for scientific, technological, diplomatic, and educational purposes and for supporting future objectives in human space exploration.		
Performance Goal 1.1.1.1	Maintain capability for six on-orbit crew members.		
APG 1.1.1.1: ISS-12-1*	In concert with the International Partners, maintain a continuous six crew capability on the ISS by coordinating and managing resources, logistics, systems, and operational procedures.	International Space Station	International Space Station
Performance Goal 1.1.1.2	HPPG: Safely fly out the Space Shuttle manifest and retire the fleet.		
APG 1.1.1.2: SSP-12-1*	Ensure the Space Shuttle Discovery is ready for transport to its final display location.	Space Shuttle	Space Shuttle
Performance Goal 1.1.1.3	Provide cargo and crew transportation to support on-orbit crew members and utilization.		
APG 1.1.1.3: ISS-12-2	Fly the ISS spares, logistics, and utilization hardware as agreed to by the International Partners in the ISS transportation plan.	International Space Station	International Space Station
APG 1.1.1.3: ISS-12-3	Complete at least two flights to the ISS by U.S.-developed cargo delivery systems.	International Space Station	International Space Station
Performance Goal 1.1.1.4	Maintain and operate a safe and functional ISS.		
APG 1.1.1.4: ISS-12-4	Provide 100 percent of planned on-orbit resources (including power, data, crew time, logistics, and accommodations) needed to support research.	International Space Station	International Space Station
APG 1.1.1.4: ISS-12-5	Achieve zero Type-A (damage to property at least $1 million or death) or Type-B (damage to property at least $250 thousand or permanent disability or hospitalization of three or more persons) mishaps.	International Space Station	International Space Station
Performance Goal 1.1.2.1	Advance knowledge of long-duration human space flight by establishing agreements with organizations to enable full utilization of the ISS.		
APG 1.1.2.1: ISS-12-6*	Accomplish a minimum of 90 percent of the on-orbit research objectives, as baselined by NASA and ISS Non-profit organization (NPO).	International Space Station	International Space Station
Performance Goal 1.1.2.2	Conduct basic and applied biological and physical research to advance and sustain U.S. scientific expertise.		

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Measure #	**Description**	**Contributing Theme**	**Contributing Program**
APG 1.1.2.2: ISS-12-7*	Conduct flight definition review for at least five flight experiments in fundamental space biology.	International Space Station	International Space Station
APG 1.1.2.2: ISS-12-8*	Deliver at least two physical sciences payloads for launch to the ISS.	International Space Station	International Space Station
APG 1.1.2.2: ISS-12-9*	Conduct at least five experiments in combustion, fluids, or materials sciences on the ISS.	International Space Station	International Space Station
Outcome 1.2	Develop competitive opportunities for the commercial community to provide best value products and services to low Earth orbit and beyond.		
Performance Goal 1.2.1.1	Develop competitive opportunities for the commercial community to provide best value products and services to low Earth orbit and beyond.		
APG 1.2.1.1: CS-12-1*	Perform Commercial Orbital Transportation Services (COTS) cargo demonstration missions and continue commercial crew transportation systems development.	Commercial Spaceflight	Commercial Cargo
Performance Goal 1.2.1.2	Develop and document evaluation and certification processes for an integrated commercial crew transportation system.		
APG 1.2.1.2: CS-12-2*	Baseline ISS Crew Transportation and Service Requirements document, CTS-REQ-1130, and Crew Transportation Technical Standards and Design Evaluation Criteria document, CCT-STD-1140.	Commercial Spaceflight	Commercial Crew
Outcome 1.3	Develop an integrated architecture and capabilities for safe crewed and cargo missions beyond low Earth orbit.		
Performance Goal 1.3.1.1	Complete design reviews for Space Launch System (SLS).		
APG 1.3.1.1: ESD-12-1*	Successfully complete the Space Launch System (SLS) Systems Requirements Review (SRR).	Exploration Systems and Development	Space Launch Systems
Performance Goal 1.3.1.2*	Complete design reviews for Orion Multi-Purpose Crew Vehicle (MPCV).		
APG 1.3.1.2: ESD-12-2*	Complete testing of Orion Multi-Purpose Crew Vehicle (MPCV) Ground Test Article (GTA).	Exploration Systems and Development	Orion Multi-Purpose Crew Vehicle
Performance Goal 1.3.2.1*	Develop technologies that will enable biomedical research and mitigate health risks associated with human space exploration missions.		
APG 1.3.2.1: ERD-12-1	Develop and release two NASA Research Announcements that solicit from the external biomedical research community the highest quality proposals to mitigate space human health risks.	Exploration Research and Development	Human Research
Performance Goal 1.3.2.2	Perform research to ensure that future human crews are protected from the deleterious effects of space radiation.		
APG	Release Acute Radiation Risk Model Version 2 to assess effects of solar particle events	Exploration	Human Research

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Measure #	**Description**	**Contributing Theme**	**Contributing Program**
1.3.2.2: ERD-12-2	during exploration missions.	Research and Development	
Performance Goal 1.3.2.3	Develop exploration medical capabilities for long-duration space missions.		
APG 1.3.2.3: ERD-12-3	Deliver the next-generation space biomedical ultrasound device to enhance the Human Research Facility capability on the ISS through 2020.	Exploration Research and Development	Human Research
Performance Goal 1.3.3.1	Prioritize the knowledge of hazards, opportunities, and potential destinations for human space exploration that will be of use to future operations of an integrated architecture for human space exploration.		
APG 1.3.3.1: ERD-12-4	In collaboration with the Planetary Science Division, develop a plan to return data that will support the selection of destinations and reduce risk for future human space exploration missions.	Exploration Research and Development	Advanced Exploration Systems
Strategic Goal 2	**Expand scientific understanding of the Earth and the universe in which we live.**		
Outcome 2.1	Advance Earth system science to meet the challenges of climate and environmental change.		
Performance Goal 2.1.1.1**	Provide national scientific capabilities through necessary skilled researchers and supporting knowledge base. (In support of objective 2.1.1: "Improve understanding of and improve the predictive capability for changes in the ozone layer, climate forcing, and air quality associated with changes in atmospheric composition.")		
APG 2.1.1.1: ES-12-1	Demonstrate planned progress in understanding and improving predictive capability for changes in the ozone layer, climate forcing, and air quality associated with changes in atmospheric composition. Progress relative to the objectives in NASA's 2010 Science Plan will be evaluated by external expert review.	Earth Science	Multiple Programs
Performance Goal 2.1.1.2*/**	By 2015, launch at least two missions in support of objective 2.1.1.		
APG 2.1.1.2: ES-12-2	Complete the Orbiting Carbon Observatory-2 (OCO-2) Systems Integration Review.	Earth Science	Earth System Science Pathfinder
APG 2.1.1.2: ES-12-3	Complete the Earth Venture-1 (EV-1) Investigation Readiness Reviews (IRR) and begin initial field campaigns.	Earth Science	Earth System Science Pathfinder
Performance Goal 2.1.2.1**	Provide national scientific capabilities through necessary skilled researchers and supporting knowledge base. (In support of objective 2.1.2: "Enable improved predictive capability for weather and extreme weather events.")		
APG 2.1.2.1: ES-12-4	Demonstrate planned progress in enabling improved predictive capability for weather and extreme weather events. Progress relative to the objectives in NASA's 2010 Science Plan will be evaluated by external expert review.	Earth Science	Multiple Programs
Performance Goal 2.1.2.2*/**	By 2015, launch at least two missions in support of objective 2.1.2.		
APG 2.1.2.2: ES-12-5	Complete the Global Precipitation Measurement (GPM) Pre-Environmental Review.	Earth Science	Earth Systematic Missions

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Measure #	**Description**	**Contributing Theme**	**Contributing Program**
APG 2.1.2.2: ES-12-3	Complete the Earth Venture-1 Investigation Readiness Reviews (IRR) and begin initial field campaigns.	Earth Science	Earth System Science Pathfinder
Performance Goal 2.1.3.1**	Provide national scientific capabilities through necessary skilled researchers and supporting knowledge base. (In support of objective 2.1.3: "Quantify, understand, and predict changes in Earth's ecosystems and biogeochemical cycles, including the global carbon cycle, land cover, and biodiversity."		
APG 2.1.3.1: ES-12-6	Demonstrate planned progress in quantifying, understanding, and predicting changes in Earth's ecosystems and biogeochemical cycles, including the global carbon cycle, land cover, and biodiversity. Progress relative to the objectives in NASA's 2010 Science Plan will be evaluated by external expert review.	Earth Science	Multiple Programs
Performance Goal 2.1.3.2*/**	By 2015, launch at least two missions in support of objective 2.1.3.		
APG 2.1.3.2: ES-12-7	Complete the Landsat Data Continuity Mission (LDCM) Systems Integration Review.	Earth Science	Earth Systematic Missions
APG 2.1.3.2: ES-12-2	Complete the Orbiting Carbon Observatory-2 (OCO-2) Systems Integration Review.	Earth Science	Earth System Science Pathfinder
APG 2.1.3.2: ES-12-3	Complete the Earth Venture-1 (EV-1) Investigation Readiness Reviews (IRR) and begin initial field campaigns.	Earth Science	Earth System Science Pathfinder
Performance Goal 2.1.4.1**	Provide national scientific capabilities through necessary skilled researchers and supporting knowledge base. (In support of objective 2.1.4: "Quantify the key reservoirs and fluxes in the global water cycle and assess water cycle change and water quality.")		
APG 2.1.4.1: ES-12-8	Demonstrate planned progress in quantifying the key reservoirs and fluxes in the global water cycle and assessing water cycle change and water quality. Progress relative to the objectives in NASA's 2010 Science Plan will be evaluated by external expert review.	Earth Science	Multiple Programs
Performance Goal 2.1.4.2*/**	By 2015, launch at least two missions in support of objective 2.1.4.		
APG 2.1.4.2: ES-12-5	Complete the Global Precipitation Measurement (GPM) Pre-Environmental Review.	Earth Science	Earth Systematic Missions
APG 2.1.4.2: ES-12-9	Successfully complete the Soil Moisture Active-Passive (SMAP) Critical Design Review.	Earth Science	Earth Systematic Missions
Performance Goal 2.1.5.1**	Provide national scientific capabilities through necessary skilled researchers and supporting knowledge base. (In support of objective 2.1.5: "Improve understanding of the roles of the ocean, atmosphere, land and ice in the climate system and improve predictive capability for its future evolution.")		
APG 2.1.5.1: ES-12-10	Demonstrate planned progress in understanding the roles of ocean, atmosphere, land, and ice in the climate system and improving predictive capability for future evolution. Progress relative to the objectives in NASA's 2010 Science Plan will be evaluated by external expert review.	Earth Science	Multiple Programs

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Measure #	**Description**	**Contributing Theme**	**Contributing Program**
APG 2.1.5.1: ES-12-11	Achieve mission success criteria for the Ocean Surface Topography Mission (OSTM).	Earth Science	Earth Systematic Missions
Performance Goal 2.1.5.2	HPPG: Study Earth from space to understand climate change, weather, and human impact on our planet by launching at least two missions by 2015.		
APG 2.1.5.2: ES-12-12	Launch the National Polar-orbiting Operational Environmental Satellite System (NPOESS) Preparatory Project (NPP).	Earth Science	Earth Systematic Missions
Performance Goal 2.1.5.3*/**	By 2015, launch at least three missions in support of objective 2.1.5.		
APG 2.1.5.3: ES-12-13*	Complete the Ice, Cloud, and Land Elevation Satellite-2 (ICESat-2) Preliminary Design Review.	Earth Science	Earth Systematic Missions
APG 2.1.5.3: ES-12-2	Complete the Orbiting Carbon Observatory-2 (OCO-2) Systems Integration Review.	Earth Science	Earth System Science Pathfinder
Performance Goal 2.1.6.1**	Provide national scientific capabilities through necessary skilled researchers and supporting knowledge base. (In support of objective 2.1.6: "Characterize the dynamics of Earth's surface and interior and form the scientific basis for the assessment and mitigation of natural hazards and response to rare and extreme events.")		
APG 2.1.6.1: ES-12-14	Demonstrate planned progress in characterizing the dynamics of Earth's surface and interior and forming the scientific basis for the assessment and mitigation of natural hazards and response to rare and extreme events. Progress relative to the objectives in NASA's 2010 Science Plan will be evaluated by external expert review.	Earth Science	Multiple Programs
Performance Goal 2.1.6.2*/**	By 2015, launch at least one mission in support of objective 2.1.6.		
APG 2.1.6.2: ES-12-7	Complete the Landsat Data Continuity Mission (LDCM) Systems Integration Review.	Earth Science	Earth Systematic Missions
Performance Goal 2.1.7.1**	Provide national scientific capabilities through necessary skilled researchers and supporting knowledge base. (In support of objective 2.1.7: "Enable the broad use of Earth system science observations and results in decision-making activities for societal benefits.")		
APG 2.1.7.1: ES-12-15*	Advance at least 25 percent of decision-support projects at least one Applications Readiness Level. The Applications Readiness Level is a nine-stage index for tracking the advancement of an Earth science applications project along a continuum from initial concept through development and transition to operational use.	Earth Science	Applied Sciences
APG 2.1.7.1: ES-12-16*	Increase the number of science data products delivered to Earth Observing System Data and Information System (EOSDIS) users.	Earth Science	Earth Science Multi-Mission Operations
APG 2.1.7.1: ES-12-17*	Maintain a high level of customer satisfaction, as measured by exceeding the most recently available federal government average rating of the Customer Satisfaction Index.	Earth Science	Earth Science Multi-Mission Operations
Outcome 2.2	Understand the Sun and its interactions with the Earth and the solar system.		
Performance Goal 2.2.1.1 **	Provide national scientific capabilities through necessary skilled researchers and supporting		

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Measure #	**Description**	**Contributing Theme**	**Contributing Program**
	knowledge base. (In support of objective 2.2.1: "Improve understanding of the fundamental physical processes of the space environment from the Sun to Earth, to other planets, and beyond to the interstellar medium.")		
APG 2.2.1.1: HE-12-1	Demonstrate planned progress in understanding the fundamental physical processes of the space environment from the Sun to Earth, to other planets, and beyond to the interstellar medium. Progress relative to the objectives in NASA's 2010 Science Plan will be evaluated by external expert review.	Heliophysics	Multiple Programs
Performance Goal 2.2.1.2*/**	By 2015, launch two missions in support of objective 2.2.1.		
APG 2.2.1.2: HE-12-2	Complete the Magnetospheric MultiScale (MMS) Systems Integration Review.	Heliophysics	Solar Terrestrial Probes
APG 2.2.1.2: HE-12-3	Complete the Geospace Radiation Belt Storm Probes Launch Readiness Review.	Heliophysics	Living with a Star
Performance Goal 2.2.2.1**	Provide national scientific capabilities through necessary skilled researchers and supporting knowledge base. (In support of objective 2.2.2: "Improve understanding of how human society, technological systems, and the habitability of planets are affected by solar variability interacting with planetary magnetic fields and atmospheres.")		
APG 2.2.2.1: HE-12-4	Demonstrate planned progress in understanding how human society, technological systems, and the habitability of planets are affected by solar variability interacting with planetary magnetic fields and atmospheres. Progress relative to the objectives in NASA's 2010 Science Plan will be evaluated by external expert review.	Heliophysics	Multiple Programs
Performance Goal 2.2.2.2*/**	By 2015, launch two missions in support of objective 2.2.2.		
APG 2.2.2.2: HE-12-2	Complete the Magnetospheric MultiScale (MMS) Systems Integration Review.	Heliophysics	Solar Terrestrial Probes
APG 2.2.2.2: HE-12-3	Complete the Geospace Radiation Belt Storm Probes Launch Readiness Review.	Heliophysics	Living with a Star
Performance Goal 2.2.3.1**	Provide national scientific capabilities through necessary skilled researchers and supporting knowledge base. (In support of objective 2.2.3: "Maximize the safety and productivity of human and robotic explorers by developing the capability to predict extreme and dynamic conditions in space.")		
APG 2.2.3.1: HE-12-5	Demonstrate planned progress in maximizing the safety and productivity of human and robotic explorers by developing the capability to predict the extreme and dynamic conditions in space. Progress relative to the objectives in NASA's 2010 Science Plan will be evaluated by external expert review.	Heliophysics	Multiple Programs
Performance Goal 2.2.3.2*/**	By 2017, launch at least two missions in support of objective 2.2.3.		
APG	Complete the Geospace Radiation Belt Storm Probes Launch Readiness Review.	Heliophysics	Living with a Star

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Measure #	**Description**	**Contributing Theme**	**Contributing Program**
2.2.3.2: HE-12-3			
Outcome 2.3	Ascertain the content, origin, and evolution of the solar system and the potential for life elsewhere.		
Performance Goal 2.3.1.1**	Provide national scientific capabilities through necessary skilled researchers and supporting knowledge base. (In support of objective 2.3.1: "Inventory solar system objects and identify the processes active in and among them.")		
APG 2.3.1.1: PS-12-1	Demonstrate planned progress in inventorying solar system objects and identifying the processes active in and among them. Progress relative to the objectives in NASA's 2010 Science Plan will be evaluated by external expert review.	Planetary Science	Multiple Programs
Performance Goal 2.3.1.2*/**	By 2017, launch at least two missions in support of objective 2.3.1.		
APG 2.3.1.2: PS-12-2	Complete New Frontiers 3 Preliminary Design Review.	Planetary Science	New Frontiers
APG 2.3.1.2: PS-12-3	Complete the Discovery 12 mission concept studies.	Planetary Science	Discovery
Performance Goal 2.3.2.1**	Provide national scientific capabilities through necessary skilled researchers and supporting knowledge base. (In support of objective 2.3.2: "Improve understanding of how the Sun's family of planets, satellites, and minor bodies originated and evolved.")		
APG 2.3.2.1: PS-12-4	Demonstrate planned progress in understanding how the Sun's family of planets, satellites, and minor bodies originated and evolved. Progress relative to the objectives in NASA's 2010 Science Plan will be evaluated by external expert review.	Planetary Science	Multiple Programs
APG 2.3.2.1: PS-12-5	Complete MESSENGER mission success criteria.	Planetary Science	Discovery
Performance Goal 2.3.2.2*/**	By 2015, launch at least three missions in support of objective 2.3.2.		
APG 2.3.2.2: PS-12-2	Complete the New Frontiers 3 Preliminary Design Review.	Planetary Science	New Frontiers
APG 2.3.2.2: PS-12-6	Complete the Lunar Atmosphere and Dust Environment Explorer (LADEE) Systems Integration Review.	Planetary Science	Lunar Quest
APG 2.3.2.2: PS-12-18*	Complete GRAIL mission success criteria.	Planetary Science	Discovery
Performance Goal 2.3.3.1**	Provide national scientific capabilities through necessary skilled researchers and supporting knowledge base. (In support of objective 2.3.3: "Improve understanding of the processes that determine the history and future of habitability of environments on Mars and other solar system bodies.")		

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Measure #	**Description**	**Contributing Theme**	**Contributing Program**
APG 2.3.3.1 : PS-12-7	Demonstrate planned progress in understanding the processes that determine the history and future of habitability of environments on Mars and other solar system bodies. Progress relative to the objectives in NASA's 2010 Science Plan will be evaluated by external expert review.	Planetary Science	Multiple Programs
Performance Goal 2.3.3.2*/**	By 2015, launch at least two missions in support of objective 2.3.3.		
APG 2.3.3.2: PS-12-8	Complete the Mars Science Laboratory (MSL) Launch Readiness Review.	Planetary Science	Mars Exploration
APG 2.3.3.2: PS-12-9	Complete the Mars Atmosphere and Volatile EvolutioN Mission (MAVEN) Systems Integration Review.	Planetary Science	Mars Exploration
Performance Goal 2.3.4.1 **	Provide national scientific capabilities through necessary skilled researchers and supporting knowledge base. (In support of objective 2.3.4: "Improve understanding of the origin and evolution of Earth's life and biosphere to determine if there is or ever has been life elsewhere in the universe.")		
APG 2.3.4.1 : PS-12-11	Demonstrate planned progress in understanding the origin and evolution of life on Earth and throughout the biosphere to determine if there is or ever has been life elsewhere in the universe. Progress relative to the objectives in NASA's 2010 Science Plan will be evaluated by external expert review.	Planetary Science	Multiple Programs
Performance Goal 2.3.5.1**	Provide national scientific capabilities through necessary skilled researchers and supporting knowledge base. (In support of objective 2.3.5: "Identify and characterize small bodies and the properties of planetary environments that pose a threat to terrestrial life or exploration or provide potentially exploitable resources.")		
APG 2.3.5.1: PS-12-12	Demonstrate planned progress in identifying and characterizing small bodies and the properties of planetary environments that pose a threat to terrestrial life or exploration or provide potentially exploitable resources. Progress relative to the objectives in NASA's 2010 Science Plan will be evaluated by external expert review.	Planetary Science	Multiple Programs
Performance Goal 2.3.5.2*	Return data for selection of destinations in order to lower risk for human space exploration beyond low Earth orbit.		
APG 2.3.5.2: PS-12-13	Demonstrate planned progress in characterizing potentially hazardous objects that are possible destinations for future human space exploration.	Planetary Science	Multiple Programs
Outcome 2.4	Discover how the universe works, explore how it began and evolved, and search for Earth-like planets.		
Performance Goal 2.4.1.1**	Provide national scientific capabilities through necessary skilled researchers and supporting knowledge base. (In support of objective 2.4.1: "Improve understanding of the origin and destiny of the universe, and the nature of black holes, dark energy, dark matter, and		

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Measure #	**Description**	**Contributing Theme**	**Contributing Program**
	gravity.")		
APG 2.4.1.1: AS-12-1	Demonstrate planned progress in understanding the origin and destiny of the universe, and the nature of black holes, dark energy, dark matter, and gravity. Progress relative to the objectives in NASA's 2010 Science Plan will be evaluated by external expert review.	Astrophysics	Multiple Programs
Performance Goal 2.4.1.2*/**	By 2015, launch at least one mission in support of objective 2.4.1.		
APG 2.4.1.2: AS-12-2	Complete the Nuclear Spectroscopic Telescope Array (NuSTAR) Launch Readiness Review.	Astrophysics	Astrophysics Explorer
Performance Goal 2.4.2.1**	Provide national scientific capabilities through necessary skilled researchers and supporting knowledge base. (In support of objective 2.4.2: "Improve understanding of the many phenomena and processes associated with galaxy, stellar, and planetary system formation and evolution from the earliest epochs to today.")		
APG 2.4.2.1: AS-12-3	Demonstrate planned progress in understanding the many phenomena and processes associated with galaxy, stellar, and planetary system formation and evolution from the earliest epochs to today. Progress relative to the objectives in NASA's 2010 Science Plan will be evaluated by external expert review.	Astrophysics	Multiple Programs
Performance Goal 2.4.2.2**	Design and assemble the James Webb Space Telescope (JWST).		
APG 2.4.2.2: JWST-12-1	Begin integration of James Webb Space Telescope (JWST) flight optics into Optical Telescope Element (OTE).	James Webb Space Telescope	James Webb Space Telescope
Performance Goal 2.4.2.3**	Develop and operate an airborne infrared astrophysics observatory.		
APG 2.4.2.3: AS-12-4	Initiate the Stratospheric Observatory for Infrared Astronomy (SOFIA) Segment 3 Aircraft modifications and upgrades.	Astrophysics	Cosmic Origins
Performance Goal 2.4.3.1**	Provide national scientific capabilities through necessary skilled researchers and supporting knowledge base. (In support of objective 2.4.3: "Generate a census of extra-solar planets and measure their properties.")		
APG 2.4.3.1: AS-12-5	Demonstrate planned progress in generating a census of extra-solar planets and measuring their properties. Progress relative to the objectives in NASA's 2010 Science Plan will be evaluated by external expert review.	Astrophysics	Multiple Programs
Strategic Goal 3	**Create the innovative new space technologies for our exploration, science, and economic future.**		
Outcome 3.1	Sponsor early stage innovation in space technologies in order to improve the future capabilities of NASA, other government agencies, and the aerospace industry.		
Performance Goal 3.1.1.1*	Develop and advance space technologies that support NASA's science, exploration and		

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FY 2012 Performance Plan			
Measure #	**Description**	**Contributing Theme**	**Contributing Program**
	discovery missions.		
APG 3.1.1.1: ST-12-1*	Research, study or develop concepts of 100 technologies as documented in technology reports or plans.	Space Technology	Crosscutting Space Technology Development
Performance Goal 3.1.1.2	Provide cash prize incentives to non-traditional sources for innovations of interest and value to NASA and the Nation.		
APG 3.1.1.2: ST-12-2*	Conduct at least one Centennial Challenges competition.	Space Technology	Crosscutting Space Technology Development
Performance Goal 3.1.1.4	Increase the proportion of Small Business Innovation Research and Small Business Technology Transfer (SBIR/STTR) technologies successfully infused into NASA programs/projects.		
APG 3.1.1.4: ST-12-4*	At least 25 percent of the Small Business Innovation Research and Small Business Technology Transfer (SBIR/STTR) Phase II technology projects awarded between 2005-2009 will be infused into NASA programs and projects.	Space Technology	SBIR and STTR
Performance Goal 3.1.1.5	Increase the Small Business Innovation Research and Small Business Technology Transfer (SBIR/STTR) Phase III contracts initiated or expanded.		
APG 3.1.1.5: ST-12-5*	At least 20 of the Small Business Innovation Research and Small Business Technology Transfer (SBIR/STTR) technologies will be advanced to Phase III (received non-SBIR/STTR funding).	Space Technology	SBIR and STTR
Outcome 3.2	Infuse game changing and crosscutting technologies throughout the Nation's space enterprise, to transform the Nation's space mission capabilities.		
Performance Goal 3.2.1.1*	Transition developed game changing technologies to the technology demonstration programs or directly to Mission Directorates for mission insertion, and/or for use by other U.S. space activities.		
APG 3.2.1.1: ST-12-7*	Initiate three game changing technology projects.	Space Technology	Crosscutting Space Technology Development
Performance Goal 3.2.3.1	Demonstrate small satellite capabilities with game changing and crosscutting potential for the government and commercial space sectors.		
APG 3.2.3.1: ST-12-9	Initiate at least one new small satellite mission that will demonstrate game changing or crosscutting technologies in space.	Space Technology	Crosscutting Space Technology Development
Performance Goal 3.2.4.1*	Infuse game changing and crosscutting technologies into future NASA missions or into national space activities through flight or relevant environment demonstrations.		

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Measure #	**Description**	**Contributing Theme**	**Contributing Program**
APG 3.2.4.1: ST-12-10*	Complete preliminary design of at least one system-level technology for flight or relevant environment demonstration.	Space Technology	Crosscutting Space Technology Development
Performance Goal 3.2.5.1	Perform sub-orbital, simulated zero-gravity and other space analog flight opportunities to develop and demonstrate emerging ideas and technologies.		
APG 3.2.5.1: ST-12-11*	Select and fly technology payloads from NASA, other government agencies, industry, and academia using flight services procured from at least three commercial reusable suborbital or parabolic platform providers.	Space Technology	Crosscutting Space Technology Development
Outcome 3.3	Develop and demonstrate the critical technologies that will make NASA's exploration, science, and discovery missions more affordable and more capable.		
Performance Goal 3.3.1.1	Demonstrate robotic technologies that support in-space operations, scientific discovery, and work as assistants with the crew.		
APG 3.3.1.1: ERD-12-5*	Develop telerobotic software for remote manipulation of Robonaut 2.	Space Technology	Exploration Technology Development
Performance Goal 3.3.2.1*	Develop advanced spacesuits to improve the ability of astronauts to conduct extravehicular activity (EVA) operations in space including assembly and service of in-space systems and exploration of surfaces of the Moon, Mars, near-Earth objects (NEOs), and other small bodies.		
APG 3.3.2.1: ERD-12-6*	Complete tests of Extra Vehicular Activity (EVA) Portable Life Support System (PLSS) subsystem in a vacuum chamber environment.	Exploration Research and Development	Advanced Exploration Systems
Performance Goal 3.3.2.2	Develop technologies and mission concepts for demonstrating in-space cryogenic propellant storage and transfer making exploration and science missions more affordable and capable.		
APG 3.3.2.2: ST-12-12*	Complete the Mission Concept Review for the Cryogenic Propellant Storage and Transfer demonstration.	Space Technology	Exploration Technology Development
Outcome 3.4	Facilitate the transfer of NASA technology and engage in partnerships with other government Agencies, industry, and international entities to generate U.S. commercial activity and other public benefits.		
Performance Goal 3.4.1.1	Establish 12 technology-related significant partnerships that create value for programs and projects. Track both quantitative dollar value and qualitative benefits to NASA (e.g., reduced volume or mass, improved safety) per year.		
APG 3.4.1.1: ST-12-13	Establish at least 12 technology-related significant partnerships during FY 2012.	Space Technology	Partnership Development and Strategic Integration
Performance Goal 3.4.1.2	Complete 30 technology transfer agreements with the commercial and academic community through such mechanisms as licenses, software use agreements, facility use		

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Measure #	**Description**	**Contributing Theme**	**Contributing Program**
	agreements, and Space Act Agreements per year.		
APG 3.4.1.2: ST-12-14	Complete at least 30 technology transfer agreements during FY 2012.	Space Technology	SBIR and STTR
Performance Goal 3.4.1.5	Document, coordinate, and prioritize Agency-level technology strategic investments to ensure NASA has a balanced portfolio of both near-term NASA mission (pull) technologies and longer-term transformational (push) technologies that benefit both Agency programs and national needs.		
APG 3.4.1.5: ST-12-17*	Ensure that 75 percent of all NASA Space Technology Program's projects are recorded in the portfolio database.	Space Technology	Partnership Development and Strategic Integration
Strategic Goal 4	**Advance aeronautics research for societal benefit.**		
Outcome 4.1	Develop innovative solutions and advanced technologies through a balanced research portfolio to improve current and future air transportation.		
Performance Goal 4.1.1.1	Transfer knowledge to the aviation community to better manage safety in aviation.		
APG 4.1.1.1: AR-12-1	Develop first generation engine icing performance degradation parametric simulation capability.	Aeronautics	Aviation Safety
APG 4.1.1.1: AR-12-2	Provide static code analysis techniques for certification.	Aeronautics	Aviation Safety
APG 4.1.1.1: AR-12-3	Develop concept of operations for an integrated vehicle health assurance system.	Aeronautics	Aviation Safety
APG 4.1.1.1: AR-12-4	Demonstrate algorithm to predict at least three anomalies in massive datasets.	Aeronautics	Aviation Safety
Performance Goal 4.1.2.1	HPPG: Increase efficiency and throughput of aircraft operations during arrival phase of flight.	Aeronautics	Airspace Systems
APG 4.1.2.1: AR-12-5	Develop Initial Weather Translation Models.	Aeronautics	Airspace Systems
APG 4.1.2.1: AR-12-6	Demonstrate safe Interval Management Procedures to a Single Airport with dependent parallel runways.	Aeronautics	Airspace Systems
APG 4.1.2.1: AR-12-7	NASA will provide the results of the human-in-the-loop (HITL) simulations and the field trial to the Federal Aviation Administration (FAA) as they are completed, with the final report being provided in September 2012. (HPPG milestone)	Aeronautics	Airspace Systems
Performance Goal 4.1.3.1*	Deliver tools, technologies, and knowledge that can be used to more efficiently and effectively design future air vehicles and their components to overcome national performance and capability challenges.		
APG 4.1.3.1: AR-12-8	Characterize gaseous and particulate emissions of hydro treated renewable jet fuel as a potential carbon dioxide (CO2) neutral aviation fuel.	Aeronautics	Fundamental Aeronautics

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FY 2012 Performance Plan			
Measure #	**Description**	**Contributing Theme**	**Contributing Program**
APG 4.1.3.1: AR-12-9	Demonstrate drag reduction benefits of active flow control for a representative rotorcraft fuselage configuration.	Aeronautics	Fundamental Aeronautics
APG 4.1.3.1: AR-12-10	Validate the effectiveness of Micro-array Flow Control devices for improving performance and flow quality in low-boom supersonic propulsion inlets.	Aeronautics	Fundamental Aeronautics
APG 4.1.3.1: AR-12-11	Demonstrate First Generation Integrated Multi-Disciplinary Simulation Tool for Analysis and Design of Reusable Air-Breathing Launch Vehicles.	Aeronautics	Fundamental Aeronautics
Outcome 4.2	Conduct systems-level research on innovative and promising aeronautics concepts and technologies to demonstrate integrated capabilities and benefits in a relevant flight and/or ground environment.		
Performance Goal 4.2.1.1	Reduce technical risk by conducting research at an integrated system-level on promising aeronautical concepts and technologies in a relevant environment.		
APG 4.2.1.1: AR-12-12	Demonstrate low-weight, damage-tolerant stitched composite structural concept on curved panel subjected to combined tension and internal pressure loads.	Aeronautics	Integrated Systems Research
APG 4.2.1.1: AR-12-13	Develop integrated Human Systems Integration, Communications, and Separation Assurance subproject test concept and Phase 2 test objectives necessary to achieve human-in-the-loop simulation and flight test series milestones supporting the Unmanned Aircraft Systems (UAS) Integration in the National Airspace System (NAS) Project.	Aeronautics	Integrated Systems Research
Strategic Goal 5	**Enable program and institutional capabilities to conduct NASA's aeronautics and space activities.**		
Outcome 5.1	Identify, cultivate, and sustain a diverse workforce and inclusive work environment that is needed to conduct NASA missions.		
Performance Goal 5.1.1.1*	Define and build the workforce skills and competencies needed for the Agency's technology development and deep space exploration.		
APG 5.1.1.1: AMO-12-1*	Sustain (from the previous fiscal year) NASA's Innovation Score, as measured by the Innovation-related questions of the Employee Viewpoint Survey (EVS), by taking actions such as refining and updating human capital policies, programs, and systems to support and encourage innovation to meet NASA's missions.	Agency Management and Operations	Agency Management
Performance Goal 5.1.1.5*	Advance a workplace environment of equal opportunity, in which discrimination allegations, including harassing conduct and retaliation for equal employment opportunity (EEO) activity, are addressed promptly and effectively and in which reasonable accommodations are provided to individuals with disabilities.		

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Measure #	**Description**	**Contributing Theme**	**Contributing Program**
APG 5.1.1.5: AMO-12-7*	Implement eight planned actions to address two identified potential employment barriers concerning individuals with disabilities, Asian/Pacific Islander, African American, Hispanic and female employees, based on the NASA Model Equal Employment Opportunity (EEO) Agency Plan.	Agency Management and Operations	Agency Management
Performance Goal 5.1.1.6	Implement an Agency-wide Diversity and Inclusion Framework to develop a more demographically diverse workforce and a more inclusive work environment.		
APG 5.1.1.6: AMO-12-8*	Implement an Agency Diversity and Inclusion (D&I) Strategic Plan aligned with the Government-wide D&I Strategic Plan.	Agency Management and Operations	Agency Management
Performance Goal 5.1.2.1	Assure that student participants in NASA higher education projects are representative of the diversity of the Nation.		
APG 5.1.2.1: ED-12-1	Achieve 40 percent participation of underserved and underrepresented (in race and/or ethnicity) in NASA higher education projects.	Education	Multiple Programs
APG 5.1.2.1: ED-12-2	Achieve 45 percent participation of women in NASA higher education projects.	Education	Multiple Programs
Outcome 5.2	Ensure vital assets are ready, available, and appropriately sized to conduct NASA's missions.		
Performance Goal 5.2.1.1*	Through 2015, assure the safety of NASA's activities and reduce damage to assets through the development, implementation, and oversight of Agency-wide safety, reliability, maintainability, and quality assurance policies and procedures.		
APG 5.2.1.1: AMO-12-9*	Assure zero fatalities or permanent disabling injuries to the public resulting from NASA activities during FY 2012.	Agency Management and Operations	Safety and Mission Success
APG5.2.1.1: AMO-12-10*	Maintain a Total Case Rate and Lost Time Case Rate that meets the goals of the President's Protecting Our Workers and Ensuring Reemployment (POWER) initiative.	Agency Management and Operations	Safety and Mission Success
APG 5.2.1.1: AMO-12-11*	Reduce damage to NASA assets (excluding launched flight hardware) by two percent during FY 2012, based on a five-year running average (that also excludes launched flight hardware).	Agency Management and Operations	Safety and Mission Success
Performance Goal 5.2.2.1*	By 2014, consolidate and centralize the management of information technology (IT) enterprise services for end user services, communications, and enterprise applications.		
APG 5.2.2.1: AMO-12-12*	Achieve full operational capability (FOC) for three service offices as part of the NASA Information Technology Infrastructure Integration Program (I3P).	Agency Management and Operations	Agency IT Services (AITS)

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Measure #	**Description**	**Contributing Theme**	**Contributing Program**
Performance Goal 5.2.2.2	By 2015, implement a capability to identify and prevent unauthorized intrusions on the NASA institutional and mission networks.		
APG 5.2.2.2: AMO-12-13	Implement intrusion detection sensors monitored by the NASA Security Operations Center (SOC) on 75 percent of NASA institutional network monitoring sites.	Agency Management and Operations	Agency IT Services (AITS)
Performance Goal 5.2.2.3	By 2014, decommission the Agency Administrative mainframe computer.		
APG 5.2.2.3: AMO-12-14	Migrate or retire all administrative systems from the Agency Administrative mainframe computer.	Agency Management and Operations	Agency IT Services (AITS)
Performance Goal 5.2.2.4	By 2015, reduce data center energy consumption by 30 percent.		
APG 5.2.2.4: AMO-12-15	Reduce the number of NASA data centers by 10 percent.	Agency Management and Operations	Agency IT Services (AITS)
Performance Goal 5.2.2.5*	Promote knowledge sharing and collaboration by effectively communicating IT Labs initiatives, projects and resources for information technology (IT) across NASA in support of the Agency's Mission.		
APG 5.2.2.5: AMO-12-16*	Identify innovative information technologies and create active participation opportunities for NASA scientists and engineers to collaborate on missions.	Agency Management and Operations	Agency IT Services (AITS)
Performance Goal 5.2.3.1	Consolidate functions and offices to reduce real property need, and use Agency Integrated Master Plan to identify and dispose of excess and aged facilities beyond useful life.		
APG 5.2.3.1: AMO-12-17	Finalize remaining Center Master Plans into the Agency Integrated Master Plan.	Agency Management and Operations	Agency Management
APG 5.2.3.1: COF-12-1	Initiate facilities demolition process for five significant Agency facilities in addition to demolition processes initiated in FY 2011.	Construction of Facilities	Institutional CoF
Outcome 5.3	Ensure the availability to the Nation of NASA-owned strategically important test capabilities.		
Performance Goal 5.3.1.1	Develop and execute the Rocket Propulsion Test (RPT) Master Plan.		
APG 5.3.1.1: SFS-12-1	Meet Rocket Propulsion Test (RPT) Master Plan requirements for year one.	Space and Flight Support	Rocket Propulsion Test
Performance Goal 5.3.2.1	Ensure that testing capabilities are available in order to support the research, development, test and engineering milestones of NASA and Department of Defense (DoD) programs.		

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Measure #	**Description**	**Contributing Theme**	**Contributing Program**
APG 5.3.2.1: AR-12-14	Achieve ratings greater than 86 percent for overall quality and timeliness of Aeronautics Test Program (ATP) facility operations.	Aeronautics	Aeronautics Test
Outcome 5.4	Implement and provide space communications and launch capabilities responsive to existing and future science and space exploration missions.		
Performance Goal 5.4.1.1	Complete Launch Services Program (LSP) objectives for all NASA-managed expendable launches.		
APG 5.4.1.1: SFS-12-2	Sustain 100 percent success rate with the successful launch of NASA-managed expendable launches as identified on the Launch Services Flight Planning Board manifest.	Space and Flight Support	Launch Services
Performance Goal 5.4.1.2	Continue utilizing existing contract mechanisms and agreements with emerging launch vehicle providers to gain information for future Launch Service orders and to provide technical exchanges to enhance early launch success.		
APG 5.4.1.2: SFS-12-3	Incorporate information sharing processes into programmatic policies and incorporate into crew demonstration activities and future crew transportation service contracts.	Space and Flight Support	Launch Services
Performance Goal 5.4.2.1	By FY 2014, enable future government and commercial launching and testing from the Florida launch and range complex.		
APG 5.4.2.1: SFS-12-4*	Complete the 21st Century Space Launch Complex (21st CSLC) System Requirements Review/System Design Review.	Space and Flight Support	21st Century Space Launch Complex
Performance Goal 5.4.3.1	By 2014, launch two functionally identical Tracking and Data Relay Satellite (TDRS) spacecraft in geosynchronous orbits to replenish the Tracking and Data Relay Satellite System (TDRSS) constellation.		
APG 5.4.3.1: SFS-12-5	Complete Tracking and Data Relay Satellite (TDRS) K Pre-ship Review.	Space and Flight Support	Space Communications and Navigation
Performance Goal 5.4.3.2	By FY 2016, replace or upgrade obsolete and unsustainable systems of the TDRSS Ground Segment at the White Sands Complex (WSC).		
APG 5.4.3.2: SFS-12-6	Complete the Space Network Ground Segment Sustainment (SGSS) Preliminary Design Review (PDR).	Space and Flight Support	Space Communications and Navigation
Performance Goal 5.4.3.3	By FY 2018, replace aging and obsolete Deep Space Network (DSN) 70-meter antenna at Canberra Deep Space Communications Complex (CDSCC).		
APG 5.4.3.3: SFS-12-7	Complete Deep Space Station-35 (DSS-35) antenna fabrication at vendor.	Space and Flight Support	Space Communications and Navigation
Outcome 5.5	Establish partnerships, including innovative arrangements, with commercial, international, and other government entities to maximize mission success.		
Performance Goal 5.5.2.1	Actively engage and provide leadership in international and interagency forums.		

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Measure #	**Description**	**Contributing Theme**	**Contributing Program**
APG 5.5.2.1: AMO-12-18	Establish an internal Interagency Partnerships Working Group (IPWG) led by the Office of International and Interagency Relations (OIIR) to improve Agency-wide coordination of interagency partnerships and related interagency working groups.	Agency Management and Operations	Agency Management
Strategic Goal 6	**Share NASA with the public, educators, and students to provide opportunities to participate in our Mission, foster innovation, and contribute to a strong national economy.**		
Outcome 6.1	Improve retention of students in STEM disciplines by providing opportunities and activities along the education pipeline.		
Performance Goal 6.1.1.1	Provide educators nationwide with knowledge and tools with which to inspire students in STEM fields.		
APG 6.1.1.1: ED-12-3*	35,000 educators participate in NASA education programs.	Education	Multiple Programs
Performance Goal 6.1.2.1	Provide higher education students with authentic NASA mission-based opportunities that build knowledge and skills needed for STEM careers.		
APG 6.1.2.1: ED-12-4*	20,000 undergraduate and graduate students participate in NASA education opportunities.	Education	Multiple Programs
Performance Goal 6.1.2.2	Provide elementary and secondary students with authentic NASA mission-based opportunities that build STEM knowledge, skills and career awareness.		
APG 6.1.2.2: ED-12-5*	200,000 elementary and secondary students participate in NASA instructional and enrichment activities.	Education	Multiple Programs
APG 6.1.2.2: ED-12-6	85 percent of elementary and secondary students express interest in STEM careers following their involvement in NASA education programs.	Education	STEM Education and Accountability
Performance Goal 6.1.3.1*	Promote equal opportunity compliance and encourage best practices among NASA grant recipient institutions.		
APG 6.1.3.1: AMO-12-19*	Provide equal opportunity (EO) assessment and technical assistance, or onsite compliance assessment on-location, at a minimum of three STEM or STEM-related programs that receive NASA funding.	Agency Management and Operations	Agency Management
Outcome 6.2	Promote STEM literacy through strategic partnerships with formal and informal organizations.		
Performance Goal 6.2.1.1	Provide educator professional development experiences and materials that align to needs and opportunities identified by districts, states, Department of Education, professional organizations, and other stakeholders.		
APG 6.2.1.1: ED-12-7*	50 percent of educators use NASA resources in their curricula after participating in NASA professional development as measured by survey responses.	Education	STEM Education and Accountability
Outcome 6.3	Engage the public in NASA's missions by providing new pathways for participation.		

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Measure #	**Description**	**Contributing Theme**	**Contributing Program**
Performance Goal 6.3.1.1	By 2015, establish an Agency-wide portfolio of participatory engagement opportunities.		
APG 6.3.1.1: AMO-12-20	Issue a competitive opportunity to engage the public in NASA's activities.	Agency Management and Operations	Agency Management
Outcome 6.4	Inform, engage and inspire the public by sharing NASA's missions, challenges, and results.		
Performance Goal 6.4.1.1	Leverage communities of practice to facilitate sharing of NASA successes and challenges with the public.		
APG 6.4.1.1: ED-12-9*	420 museums and science centers across the country actively engage the public in major NASA events.	Education	Multiple Programs
Performance Goal 6.4.2.1	Use current and emerging communications technologies to reach increasingly broad audiences.		
APG 6.4.2.1: AMO-12-21	Evaluate communication tools for impact and establish Agency best practices.	Agency Management and Operations	Agency Management
Performance Goal 6.4.3.1	Make available Agency records through the Freedom of Information Act (FOIA), Privacy Act, and Open Government Initiative in accordance with federal laws and regulations.		
APG 6.4.3.1: AMO-12-22	Finalize NASA Freedom of Information Act (FOIA) regulations.	Agency Management and Operations	Agency Management
Uniform Efficiency Measures			
AR-12-15*	Deliver at least 86 percent of on-time availability for operations and research facilities.	Aeronautics Research	Aeronautics Test Program
ES-12-20	Complete all development projects within 110 percent of the cost and schedule baseline.	Earth Science	Multiple Programs
ES-12-21	Deliver at least 90 percent of scheduled operating hours for all operations and research facilities.	Earth Science	Multiple Programs
ES-12-22	Peer-review and competitively award at least 90 percent, by budget, of research projects.	Earth Science	Multiple Programs
ES-12-23	Reduce time within which 80 percent of NASA Research Announcement (NRA) grants are awarded, from proposal due date to selection, by four percent per year, with a goal of 180 days.	Earth Science	Multiple Programs
HE-12-6	Complete all development projects within 110 percent of the cost and schedule baseline.	Heliophysics	Multiple Programs
HE-12-7	Deliver at least 90 percent of scheduled operating hours for all operations and research facilities.	Heliophysics	Multiple Programs
HE-12-8*	Peer-review and competitively award at least 95 percent, by budget, of research projects.	Heliophysics	Multiple Programs
HE-12-9	Reduce time within which 80 percent of NASA Research Announcement (NRA) grants are awarded, from proposal due date to selection, by four percent per year, with a goal of 180	Heliophysics	Multiple Programs

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Measure #	**Description**	**Contributing Theme**	**Contributing Program**
	days.		
PS-12-14*	Complete all development projects within 110 percent of the cost and schedule baseline.	Planetary Science	Multiple Programs
PS-12-15*	Deliver at least 90 percent of scheduled operating hours for all operations and research facilities.	Planetary Science	Multiple Programs
PS-12-16*	Peer-review and competitively award at least 95 percent, by budget, of research projects.	Planetary Science	Multiple Programs
PS-12-17*	Reduce time within which 80 percent of NASA Research Announcement (NRA) grants are awarded, from proposal due date to selection, by four percent per year, with a goal of 180 days.	Planetary Science	Multiple Programs
AS-12-6	Complete all development projects within 110 percent of the cost and schedule baseline.	Astrophysics	Multiple Programs
AS-12-7	Deliver at least 90 percent of scheduled operating hours for all operations and research facilities.	Astrophysics	Multiple Programs
AS-12-8	Peer-review and competitively award at least 95 percent, by budget, of research projects.	Astrophysics	Multiple Programs
AS-12-9*	Maintain time within which 80 percent of NASA Research Announcement (NRA) grants are awarded, from proposal due date to selection, at no more than 180 days.	Astrophysics	Multiple Programs

**Measures that have been revised.*

*** The Performance Goals in support of Earth Science, Heliophysics, Planetary Science, and Astrophysics themes are distinct activities supporting the scientific objectives established in NASA's Strategic Plan.*

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